

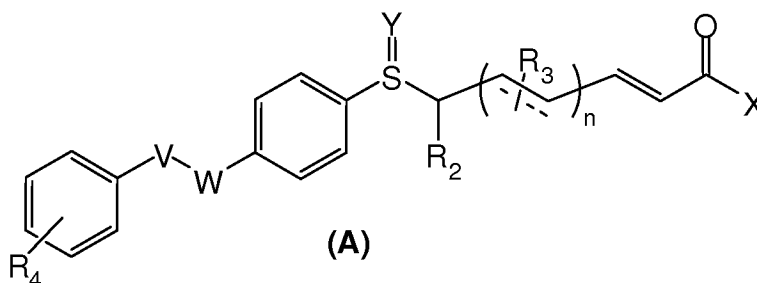
**In the Claims:**

This listing of claims will replace all prior versions, and listings of the claims in the application.

Please amend claim 53, as follows:

1-40. **(canceled).**

41. **(previously presented)** A compound of general formula (A)



in which:

$R^2$  and  $R^3$  are independently hydrogen,  $(C_1-C_{12})$  alkyl, substituted  $(C_1-C_{12})$  alkyl, or unsaturated  $(C_2-C_{12})$  comprising one or more  $C=C$  bond or  $C\equiv C$  bond,  $(C_6$  or  $C_{10})$  aryl or  $(C_6$  or  $C_{10})$  heteroaryl, or a combination thereof to form a linked or fused ring system, or  $(C_1-C_{10})$  alkoxy,  $(C_1-C_{10})$  thioalkoxy, hydroxyl,  $(C_1-C_{10})$  hydroxylalkyl, halo,  $(C_1-C_{10})$  haloalkyl, cyano, nitro, amino, amido,  $(C_1-C_{10})$  alkylamino,  $(C_1-C_{10})$  alkylcarbonyloxy,  $(C_1-C_{10})$  alkoxycarbonyl,  $(C_1-C_{10})$  alkylcarbonyl,  $(C_1-C_{10})$  alkylthiocarbonyl,  $(C_1-C_{10})$  alkylsulfonylamino, aminosulfonyl,  $(C_1-C_{10})$  alkylsulfinyl, or  $(C_1-C_{10})$  alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), N(R)SO<sub>2</sub>, SO<sub>2</sub>N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO<sub>2</sub>, SO<sub>2</sub>O, or OC(O)O, where R is independently hydrogen,  $(C_1-C_{10})$  alkyl,  $(C_1-C_{10})$  alkenyl,  $(C_1-C_{10})$  alkynyl,  $(C_1-C_{10})$  alkoxy,  $(C_1-C_{10})$  hydroxylalkyl, hydroxyl,  $(C_1-C_{10})$  haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with  $(C_1-C_{10})$  alkyl,  $(C_1-C_{10})$  alkenyl,  $(C_1-C_{10})$  alkynyl,  $(C_1-C_{10})$  alkoxy, hydroxyl, hydroxyl,  $(C_1-C_{10})$  hydroxylalkyl, halo,  $(C_1-C_{10})$  haloalkyl, amino,  $(C_1-C_{10})$  alkylcarbonyloxy,  $(C_1-C_{10})$  alkoxycarbonyl,  $(C_1-C_{10})$  alkylcarbonyl,  $(C_1-C_{10})$

alkylsulfonylamino, aminosulfonyl, or (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonyl, or R<sup>2</sup> and R<sup>3</sup> optionally form a (C<sub>6</sub> or C<sub>10</sub>) aryl, (C<sub>6</sub> or C<sub>10</sub>) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C<sub>3</sub>-C<sub>8</sub>) heterocycloalkenyl, (C<sub>5</sub>-C<sub>8</sub>) cycloalkene ring, (C<sub>5</sub>-C<sub>8</sub>) cycloalkyl, (C<sub>5</sub>-C<sub>8</sub>) heterocycloalkyl linked or fused ring system, optionally containing up to 3 heteroatoms selected from oxygen, nitrogen, sulphur, and phosphorous;

R<sub>4</sub> is hydrogen, unsubstituted or substituted C<sub>1</sub>-C<sub>10</sub> alkyl, an unsaturated hydrocarbon chain of up to ten carbon atoms comprising one or more carbon-carbon double bonds, C<sub>6</sub> or C<sub>10</sub> aryl, a 5 to 10 membered heterocyclic group, C<sub>1</sub>-C<sub>10</sub> alkoxy, C<sub>1</sub>-C<sub>10</sub> thioalkoxy, hydroxyl, halo, cyano, nitro, amino, amido, (C<sub>1</sub>-C<sub>10</sub> alkyl)thiocarbonyl, (C<sub>1</sub>-C<sub>10</sub> alkyl)sulfonylamino, aminosulfonyl, C<sub>1</sub>-C<sub>10</sub> alkylsulfinyl, C<sub>1</sub>-C<sub>10</sub> alkylsulfonyl, or a saturated or unsaturated C<sub>3</sub>-C<sub>12</sub> hydrocarbon chain interrupted by O, S, NR, CO, C(NR), C(R)SO<sub>2</sub>, or OC(O)O, wherein R is as defined above and the saturated or unsaturated hydrocarbon chain is optionally substituted as defined above;

n is equal to 0, 1 or 2;

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, where each R is independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or substituted C<sub>1</sub>-C<sub>6</sub> alkyl; and

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, or substituted C<sub>1</sub>-C<sub>6</sub> alkyl;

in which V and W are as follows:

a single carbon-carbon bond;

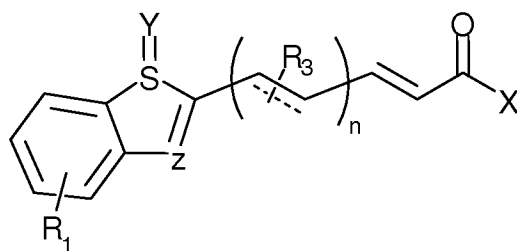
V is CR and W is N, saturated or unsaturated;

V is N and W is CR, saturated or unsaturated;

a linkage of the form VW or WV = RRC-O or RRC-S, wherein V and W are each optionally substituted (C<sub>1</sub>-C<sub>6</sub>) alkyl, C<sub>6</sub> aryl or heterocycle; and

in which each R is independently defined.

42. **(previously presented)** A compound of general formula (B1)



(B1)

in which:

$R^1$  is ( $C_6$  or  $C_{10}$ ) aryl, ( $C_6$  or  $C_{10}$ ) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, ( $C_6$  or  $C_{10}$ ) heteroaryl, ( $C_3$ - $C_8$ ) heterocycloalkenyl, ( $C_5$ - $C_8$ ) cycloalkene ring, ( $C_5$ - $C_8$ ) cycloalkyl, ( $C_5$ - $C_8$ ) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with ( $C_1$ - $C_{10}$ ) alkyl, ( $C_1$ - $C_{10}$ ) alkenyl, ( $C_1$ - $C_{10}$ ) alkynyl, ( $C_1$ - $C_{10}$ ) alkoxy, ( $C_1$ - $C_{10}$ ) thioalkoxy, hydroxyl, ( $C_1$ - $C_{10}$ ) hydroxylalkyl, halo, ( $C_1$ - $C_{10}$ ) haloalkyl, amino, amido, ( $C_1$ - $C_{10}$ ) alkylamino, ( $C_1$ - $C_{10}$ ) alkylcarbonyloxy, ( $C_1$ - $C_{10}$ ) alkoxy carbonyl, ( $C_1$ - $C_{10}$ ) alkylcarbonyl, ( $C_1$ - $C_{10}$ ) alkylthiocarbonyl, ( $C_1$ - $C_{10}$ ) alkylsulfonylamino, aminosulfonyl, ( $C_1$ - $C_{10}$ ) alkylsulfinyl, or ( $C_1$ - $C_{10}$ ) alkylsulfonyl,

$R^3$  is hydrogen, ( $C_1$ - $C_{12}$ ) alkyl, substituted ( $C_1$ - $C_{12}$ ) alkyl, or unsaturated ( $C_2$ - $C_{12}$ ) comprising one or more  $C=C$  bond or  $C\equiv C$  bond, ( $C_6$  or  $C_{10}$ ) aryl or ( $C_6$  or  $C_{10}$ ) heteroaryl, or a combination thereof to form a linked or fused ring system, or ( $C_1$ - $C_{10}$ ) alkoxy, ( $C_1$ - $C_{10}$ ) thioalkoxy, hydroxyl, ( $C_1$ - $C_{10}$ ) hydroxylalkyl, halo, ( $C_1$ - $C_{10}$ ) haloalkyl, cyano, nitro, amino, amido, ( $C_1$ - $C_{10}$ ) alkylamino, ( $C_1$ - $C_{10}$ ) alkylcarbonyloxy, ( $C_1$ - $C_{10}$ ) alkoxy carbonyl, ( $C_1$ - $C_{10}$ ) alkylcarbonyl, ( $C_1$ - $C_{10}$ ) alkylthiocarbonyl, ( $C_1$ - $C_{10}$ ) alkylsulfonylamino, aminosulfonyl, ( $C_1$ - $C_{10}$ ) alkylsulfinyl, or ( $C_1$ - $C_{10}$ ) alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), N(R)SO<sub>2</sub>, SO<sub>2</sub>N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO<sub>2</sub>, SO<sub>2</sub>O, or OC(O)O, where R is independently hydrogen, ( $C_1$ - $C_{10}$ ) alkyl, ( $C_1$ - $C_{10}$ ) alkenyl, ( $C_1$ - $C_{10}$ ) alkynyl, ( $C_1$ - $C_{10}$ ) alkoxy, ( $C_1$ - $C_{10}$ ) hydroxylalkyl, hydroxyl, ( $C_1$ - $C_{10}$ ) haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with ( $C_1$ - $C_{10}$ ) alkyl, ( $C_1$ - $C_{10}$ ) alkenyl, ( $C_1$ - $C_{10}$ ) alkynyl, ( $C_1$ - $C_{10}$ ) alkoxy, hydroxyl, hydroxyl, ( $C_1$ - $C_{10}$ ) hydroxylalkyl, halo, ( $C_1$ - $C_{10}$ ) haloalkyl, amino, ( $C_1$ - $C_{10}$ ) alkylcarbonyloxy, ( $C_1$ - $C_{10}$ ) alkoxy carbonyl, ( $C_1$ - $C_{10}$ ) alkylcarbonyl, ( $C_1$ - $C_{10}$ )

alkylsulfonylamino, aminosulfonyl, or (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonyl,

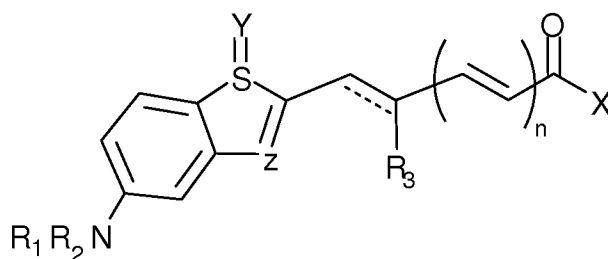
n is equal to 0, 1 or 2;

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, where each R is independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or substituted C<sub>1</sub>-C<sub>6</sub> alkyl; and

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, or substituted C<sub>1</sub>-C<sub>6</sub> alkyl; and

Z is a one atom linkage of N, CH, or CR or a two-atom linkage of varying combinations of atoms of CH, CR, O, N, S, SO, SO<sub>2</sub> wherein R is C<sub>1</sub>-C<sub>6</sub> alkyl or substituted C<sub>1</sub>-C<sub>6</sub> alkyl.

43. **(previously presented)** A compound of general formula (B2)



(B2)

in which:

R<sup>1</sup> is (C<sub>6</sub> or C<sub>10</sub>) aryl, (C<sub>6</sub> or C<sub>10</sub>) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C<sub>6</sub> or C<sub>10</sub>) heteroaryl, (C<sub>3</sub>-C<sub>8</sub>) heterocycloalkenyl, (C<sub>5</sub>-C<sub>8</sub>) cycloalkene ring, (C<sub>5</sub>-C<sub>8</sub>) cycloalkyl, (C<sub>5</sub>-C<sub>8</sub>) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with (C<sub>1</sub>-C<sub>10</sub>) alkyl, (C<sub>1</sub>-C<sub>10</sub>) alkenyl, (C<sub>1</sub>-C<sub>10</sub>) alkynyl, (C<sub>1</sub>-C<sub>10</sub>) alkoxy, (C<sub>1</sub>-C<sub>10</sub>) thioalkoxy, hydroxyl, (C<sub>1</sub>-C<sub>10</sub>) hydroxylalkyl, halo, (C<sub>1</sub>-C<sub>10</sub>) haloalkyl, amino, amido, (C<sub>1</sub>-C<sub>10</sub>) alkylamino, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyloxy, (C<sub>1</sub>-C<sub>10</sub>) alkoxy carbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylthiocarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonylamino, aminosulfonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfinyl, or (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonyl,

R<sup>2</sup> and R<sup>3</sup> are each independently hydrogen, (C<sub>1</sub>-C<sub>12</sub>) alkyl, substituted (C<sub>1</sub>-C<sub>12</sub>) alkyl, or unsaturated (C<sub>2</sub>-C<sub>12</sub>) comprising one or more C=C bond or C≡C bond, (C<sub>6</sub> or C<sub>10</sub>) aryl or (C<sub>6</sub> or C<sub>10</sub>) heteroaryl, or a combination thereof to form a linked or fused ring system, or (C<sub>1</sub>-C<sub>10</sub>)

alkoxy, (C<sub>1</sub>-C<sub>10</sub>) thioalkoxy, hydroxyl, (C<sub>1</sub>-C<sub>10</sub>) hydroxylalkyl, halo, (C<sub>1</sub>-C<sub>10</sub>) haloalkyl, cyano, nitro, amino, amido, (C<sub>1</sub>-C<sub>10</sub>) alkylamino, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyloxy, (C<sub>1</sub>-C<sub>10</sub>) alkoxycarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylthiocarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonylamino, aminosulfonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfinyl, or (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), N(R)SO<sub>2</sub>, SO<sub>2</sub>N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO<sub>2</sub>, SO<sub>2</sub>O, or OC(O)O, where R is independently hydrogen, (C<sub>1</sub>-C<sub>10</sub>) alkyl, (C<sub>1</sub>-C<sub>10</sub>) alkenyl, (C<sub>1</sub>-C<sub>10</sub>) alkynyl, (C<sub>1</sub>-C<sub>10</sub>) alkoxy, (C<sub>1</sub>-C<sub>10</sub>) hydroxylalkyl, hydroxyl, (C<sub>1</sub>-C<sub>10</sub>) haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with (C<sub>1</sub>-C<sub>10</sub>) alkyl, (C<sub>1</sub>-C<sub>10</sub>) alkenyl, (C<sub>1</sub>-C<sub>10</sub>) alkynyl, (C<sub>1</sub>-C<sub>10</sub>) alkoxy, hydroxyl, hydroxyl, (C<sub>1</sub>-C<sub>10</sub>) hydroxylalkyl, halo, (C<sub>1</sub>-C<sub>10</sub>) haloalkyl, amino, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyloxy, (C<sub>1</sub>-C<sub>10</sub>) alkoxycarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonylamino, aminosulfonyl, or (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonyl; or

R<sup>2</sup> and R<sup>3</sup> optionally form a (C<sub>6</sub> or C<sub>10</sub>) aryl, (C<sub>6</sub> or C<sub>10</sub>) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C<sub>3</sub>-C<sub>8</sub>) heterocycloalkenyl, (C<sub>5</sub>-C<sub>8</sub>) cycloalkene ring, (C<sub>5</sub>-C<sub>8</sub>) cycloalkyl, (C<sub>5</sub>-C<sub>8</sub>) heterocycloalkyl linked or fused ring system, optionally containing up to 3 heteroatoms, e.g. oxygen, nitrogen, sulphur or phosphorous; or

R<sup>1</sup> and R<sup>2</sup> optionally form a (C<sub>6</sub> or C<sub>10</sub>) aryl, (C<sub>6</sub> or C<sub>10</sub>) arylalkyl, (C<sub>6</sub> or C<sub>10</sub>) heteroaryl, (C<sub>3</sub>-C<sub>8</sub>) heterocycloalkenyl, (C<sub>5</sub>-C<sub>8</sub>) cycloalkene ring, (C<sub>5</sub>-C<sub>8</sub>) cycloalkyl, (C<sub>5</sub>-C<sub>8</sub>) heterocycloalkyl linked or fused ring system, optionally the ring formed is further substituted with a group R<sup>1</sup> as defined above, or the ring formed is fused to a further C<sub>6</sub> aryl group which is optionally substituted with a group R<sup>1</sup> as defined above, or a group R<sup>1</sup>R<sup>2</sup>N, with R<sup>1</sup> and R<sup>2</sup> as defined above,

n is equal to 0, 1 or 2,

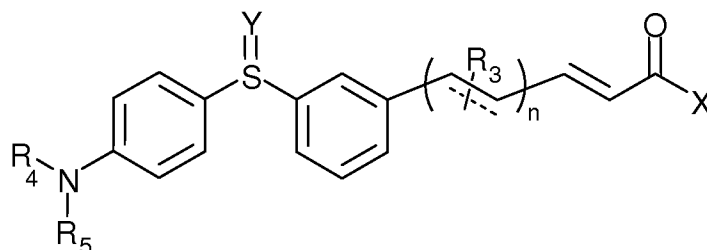
X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, where each R is independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or substituted C<sub>1</sub>-C<sub>6</sub> alkyl, and

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, OR or C, where R is C<sub>1</sub>-C<sub>6</sub> alkyl or substituted C<sub>1</sub>-C<sub>6</sub> alkyl,

and Z is a one atom linkage of N, CH or CR, or a two-atom linkage of varying combinations of atoms of CH, CR, O, N, S, SO, SO<sub>2</sub>, and in which each R is independently C<sub>1</sub>-C<sub>6</sub> alkyl or

substituted C<sub>1</sub>-C<sub>6</sub> alkyl.

44. **(previously presented)** A compound of general formula (C)



(C)

in which:

R<sup>3</sup> is hydrogen, (C<sub>1</sub>-C<sub>12</sub>) alkyl, substituted (C<sub>1</sub>-C<sub>12</sub>) alkyl, or unsaturated (C<sub>2</sub>-C<sub>12</sub>) comprising one or more C=C bond or C≡C bond, (C<sub>6</sub> or C<sub>10</sub>) aryl or (C<sub>6</sub> or C<sub>10</sub>) heteroaryl, or a combination thereof to form a linked or fused ring system, or (C<sub>1</sub>-C<sub>10</sub>) alkoxy, (C<sub>1</sub>-C<sub>10</sub>) thioalkoxy, hydroxyl, (C<sub>1</sub>-C<sub>10</sub>) hydroxylalkyl, halo, (C<sub>1</sub>-C<sub>10</sub>) haloalkyl, cyano, nitro, amino, amido, (C<sub>1</sub>-C<sub>10</sub>) alkylamino, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyloxy, (C<sub>1</sub>-C<sub>10</sub>) alkoxycarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylthiocarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonylamino, aminosulfonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfinyl, or (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), N(R)SO<sub>2</sub>, SO<sub>2</sub>N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO<sub>2</sub>, SO<sub>2</sub>O, or OC(O)O, where R is independently hydrogen, (C<sub>1</sub>-C<sub>10</sub>) alkyl, (C<sub>1</sub>-C<sub>10</sub>) alkenyl, (C<sub>1</sub>-C<sub>10</sub>) alkynyl, (C<sub>1</sub>-C<sub>10</sub>) alkoxy, (C<sub>1</sub>-C<sub>10</sub>) hydroxylalkyl, hydroxyl, (C<sub>1</sub>-C<sub>10</sub>) haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with (C<sub>1</sub>-C<sub>10</sub>) alkyl, (C<sub>1</sub>-C<sub>10</sub>) alkenyl, (C<sub>1</sub>-C<sub>10</sub>) alkynyl, (C<sub>1</sub>-C<sub>10</sub>) alkoxy, hydroxyl, hydroxyl, (C<sub>1</sub>-C<sub>10</sub>) hydroxylalkyl, halo, (C<sub>1</sub>-C<sub>10</sub>) haloalkyl, amino, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyloxy, (C<sub>1</sub>-C<sub>10</sub>) alkoxycarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonylamino, aminosulfonyl, or (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonyl;

n is equal to 0, 1 or 2;

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, where each R is independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or substituted C<sub>1</sub>-C<sub>6</sub> alkyl;

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, OR or C, where R is C<sub>1</sub>-C<sub>6</sub> alkyl

or substituted C<sub>1</sub>-C<sub>6</sub> alkyl; and

R<sup>4</sup> and R<sup>5</sup> are each independently hydrogen, unsubstituted or substituted C<sub>1</sub>-C<sub>10</sub> alkyl, an unsaturated hydrocarbon chain of up to ten carbon atoms comprising one or more carbon-carbon double bonds, C<sub>6</sub> or C<sub>10</sub> aryl, a 5- to 10-membered heterocyclic group, C<sub>1</sub>-C<sub>10</sub> alkoxy, C<sub>1</sub>-C<sub>10</sub> thioalkoxy, hydroxyl, halo, cyano, nitro, amino, amido, (C<sub>1</sub>-C<sub>10</sub> alkyl)carbonyloxy, (C<sub>1</sub>-C<sub>10</sub> alkoxy)carbonyl, (C<sub>1</sub>-C<sub>10</sub> alkyl)carbonyl, (C<sub>1</sub>-C<sub>10</sub> alkyl)thiocarbonyl, (C<sub>1</sub>-C<sub>10</sub> alkyl)sulfonylamino, aminosulfonyl, C<sub>1</sub>-C<sub>10</sub> alkylsulfinyl, C<sub>1</sub>-C<sub>10</sub> alkylsulfonyl, or a saturated or unsaturated C<sub>3</sub>-C<sub>12</sub> hydrocarbon chain interrupted by O, S, NR, CO, C(NR), N(R)SO<sub>2</sub>, SO<sub>2</sub>N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO<sub>2</sub>, SO<sub>2</sub>O or OC(O)O<sub>2</sub> where R is as defined above and the saturated or unsaturated hydrocarbon chain is optionally substituted as defined above.

45. **(previously presented)** A compound as claimed in claim 41, in which R<sup>2</sup> and R<sup>3</sup> are both Hydrogen.

46. **(previously presented)** A compound as claimed in claim 41, in which R<sup>2</sup> is methyl (CH<sub>3</sub>) and R<sup>3</sup> is Hydrogen.

47. **(previously presented)** A compound as claimed in claim 41, in which R<sup>2</sup> is Hydrogen and R<sup>3</sup> is methyl (CH<sub>3</sub>).

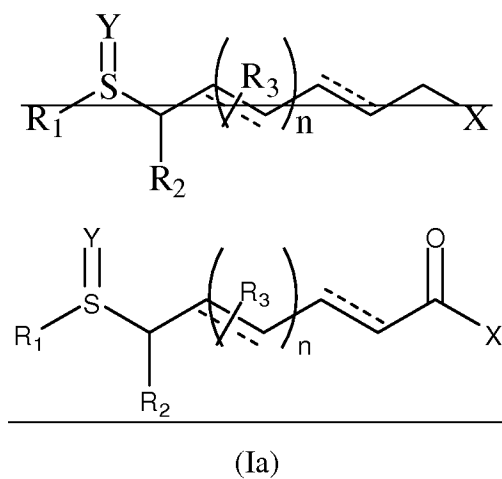
48. **(previously presented)** A compound as claimed in claim 41, in which R<sup>2</sup> and R<sup>3</sup> are both methyl (CH<sub>3</sub>).

49. **(previously presented)** A compound as claimed in claim 41, in which X is -OH, -OC<sub>2</sub>H<sub>5</sub>, -OCH<sub>3</sub>, or NHOH.

50. **(previously presented)** A compound as claimed in claim 41, in which Y is represented by one or two oxygen atoms.

51-52. (canceled).

53. (currently amended) A compound of general formula (Ia)



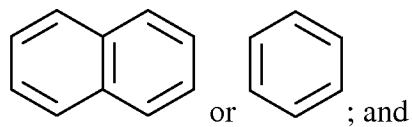
wherein:

$R^2$  and  $R^3$  are both Hydrogen (H);

Y is two oxygen atoms;

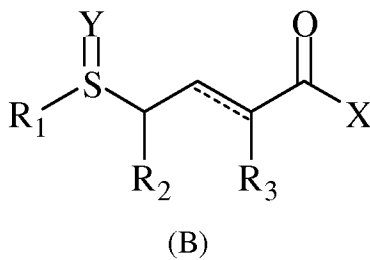
n is 1;

$R^1$  is



X is -OH, -CH<sub>3</sub>, -OC<sub>2</sub>H<sub>5</sub> or NHOH.

54. (previously presented) A compound of general formula (B)





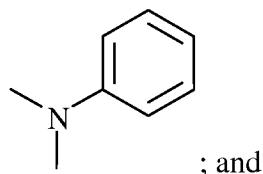
wherein:

$R^2$  and  $R^3$  are both methyl ( $CH_3$ );

Y is zero oxygen atoms;

n is zero;

$R_1$  is



X is  $-OCH_3$ ,  $-OC_2H_5$  or  $-OH$ .

55. **(previously presented)** A compound which is:

6-(4-Dimethylamino-phenylsulfanyl)-hexa-2,4-dienoic acid methyl ester (6d),

6-(4-Methoxy-phenylsulfanyl)-hexa-2,4-dienoic acid methyl ester (6e),

6-(4-Chloro-phenylsulfanyl)-hexa-2,4-dienoic acid hydroxyamide (7b),

6-(4-Dimethylamino-phenylsulfanyl)-hexa-2,4-dienoic acid hydroxyamide (7c),

6-(4-Chloro-benzenesulfinyl)-hexa-2,4-dienoic acid methyl ester (8b),

6-(4-Methoxy-benzenesulfinyl)-hexa-2,4-dienoic acid methyl ester (8c),

6-Benzenesulfinyl-hexa-2,4-dienoic acid (8d),

6-(4-Chloro-benzenesulfinyl)-hexa-2,4-dienoic acid hydroxyamide (9a),

6-(4-Methoxy-benzenesulfinyl)-hexa-2,4-dienoic acid hydroxyamide (9b),

6-Benzenesulfonyl-hexa-2,4-dienoic acid (10a),

6-Benzenesulfonyl-hexa-2,4-dienoic acid methyl ester (10b),

6-Benzenesulfonyl-hexa-2,4-dienoic acid hydroxyamide (11a),

6-(Naphthalen-2-ylsulfanyl)-hexa-2,4-dienoic acid methyl ester (13b),

6-(Naphthalen-2-ylsulfanyl)-hexa-2,4-dienoic acid hydroxyamide (14a),

4-(4-Dimethylamino-phenylsulfanyl)-2-methyl-pent-2-enoic acid methyl ester (21b),

6-(4-Dimethylamino-phenylsulfanyl)-4-methyl-hepta-2,4-dienoic acid ethyl ester (24c),

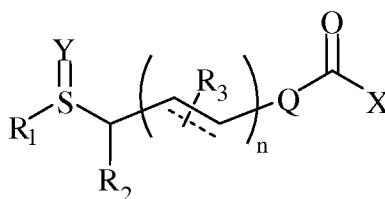
6-(4-Dimethylamino-phenylsulfanyl)-4-methyl-hepta-2,4-dienoic acid hydroxyamide (25c),

6-(4-Chloro-phenylsulfanyl)-hexanoic acid methyl ester (28b),  
7-(4-Chloro-phenylsulfanyl)-heptanoic acid ethyl ester (28c),  
6-(4-Dimethylamino-phenylsulfanyl)-hexanoic acid methyl ester (28e),  
6-(4-((4-Chlorobenzyl)-methylamino)-phenylsulfanyl)-hexanoic acid methyl ester (28f),  
6-(4-(4-Chlorobenzenesulfonylamino)-phenylsulfanyl)-hexanoic acid methyl ester (28g),  
6-(4-Bromo-phenylsulfanyl)-hexanoic acid methyl ester (28h),  
6-(4'-Chloro-biphenyl-4-ylsulfanyl)-hexanoic acid methyl ester (28i),  
6-(4-Chloro-phenylsulfanyl)-hexanoic acid hydroxyamide (29b),  
6-(4-Dimethylamino-phenylsulfanyl)-hexanoic acid hydroxamide (29c),  
6-(4-(4-Chlorobenzenesulfonylamino)-phenylsulfanyl)-hexanoic acid hydroxamide (29g),  
6-(4'-Chloro-biphenyl-4-ylsulfanyl)-hexanoic acid hydroxamide (29i),  
6-(4-Chloro-benzenesulfinyl)-hexanoic acid methyl ester (30b),  
7-(4-Chloro-benzenesulfinyl)-heptanoic acid ethyl ester (30c),  
6-(4-Dimethylamino-benzenesulfinyl)-hexanoic acid methyl ester (30e),  
6-(4-((4-Chlorobenzyl)-methylamino)-benzenesulfinyl)-hexanoic acid methyl ester (30f),  
6-(4'-Chloro-biphenyl-4-ylsulfinyl)-hexanoic acid methyl ester (30i),  
6-(4-Chloro-benzenesulfinyl)-hexanoic acid hydroxyamide (31a),  
7-(4-Chloro-benzenesulfinyl)-heptanoic acid hydroxyamide (31c),  
6-(4-Dimethylamino-benzenesulfinyl)-hexanoic acid hydroxyamide (31e),  
6-(4-((4-Chlorobenzyl)-methylamino)-benzenesulfinyl)-hexanoic acid hydroxamide (31f),  
6-(4'-Chloro-biphenyl-4-sulfinyl)-hexanoic acid hydroxyamide (31i),  
(2E,4E)-5-(5-Dimethylamino-benzo[*b*]thiophen-2-yl)-penta-2,4-dienoic acid ethyl ester (41a),  
(2E,4E)-5-(5-Dimethylaminobenzo[*b*]thiophen-2-yl)-penta-2,4-dienoic acid hydroxamide (42a),

(E)-3-(3-(4-Dimethylamino-phenylsulfanyl)-phenyl)-acrylic acid ethyl ester (51a.), or  
 (E)-3-(3-(4-Dimethylamino-phenylsulfanyl)-phenyl)-*N*-hydroxy-acrylamide (52a).

56. **(previously presented)** A pharmaceutical composition comprising a compound of claims 41 to 50, and 53 to 55, and optionally a pharmaceutically acceptable adjuvant and/or diluent.

57. **(previously presented)** A method of inhibiting HDAC activity in an individual comprising administering to said individual a therapeutically effective amount of a compound of general formula (I):



(I)

in which:

$R^1$  is ( $C_6$  or  $C_{10}$ ) aryl, ( $C_6$  or  $C_{10}$ ) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, ( $C_6$  or  $C_{10}$ ) heteroaryl, ( $C_3$ - $C_8$ ) heterocycloalkenyl, ( $C_5$ - $C_8$ ) cycloalkene ring, ( $C_5$ - $C_8$ ) cycloalkyl, ( $C_5$ - $C_8$ ) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with ( $C_1$ - $C_{10}$ ) alkyl, ( $C_1$ - $C_{10}$ ) alkenyl, ( $C_1$ - $C_{10}$ ) alkynyl, ( $C_1$ - $C_{10}$ ) alkoxy, ( $C_1$ - $C_{10}$ ) thioalkoxy, hydroxyl, ( $C_1$ - $C_{10}$ ) hydroxylalkyl, halo, ( $C_1$ - $C_{10}$ ) haloalkyl, amino, amido, ( $C_1$ - $C_{10}$ ) alkylamino, ( $C_1$ - $C_{10}$ ) alkylcarbonyloxy, ( $C_1$ - $C_{10}$ ) alkoxy carbonyl, ( $C_1$ - $C_{10}$ ) alkylcarbonyl, ( $C_1$ - $C_{10}$ ) alkylthiocarbonyl, ( $C_1$ - $C_{10}$ ) alkylsulfonylamino, aminosulfonyl, ( $C_1$ - $C_{10}$ ) alkylsulfinyl, or ( $C_1$ - $C_{10}$ ) alkylsulfonyl,

$R^2$  and  $R^3$  are each independently hydrogen, ( $C_1$ - $C_{12}$ ) alkyl, unsaturated ( $C_2$ - $C_{12}$ ) comprising one or more  $C=C$  bond or  $C\equiv C$  bond, ( $C_1$ - $C_{10}$ ) alkoxy, ( $C_1$ - $C_{10}$ ) thioalkoxy, hydroxyl, ( $C_1$ - $C_{10}$ ) hydroxylalkyl, halo, or ( $C_1$ - $C_{10}$ ) haloalkyl; or

$R^2$  and  $R^3$  optionally form a ( $C_6$  or  $C_{10}$ ) aryl, ( $C_6$  or  $C_{10}$ ) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, ( $C_3$ - $C_8$ ) heterocycloalkenyl, ( $C_5$ - $C_8$ )

cycloalkene ring, (C<sub>5</sub>-C<sub>8</sub>) cycloalkyl, (C<sub>5</sub>-C<sub>8</sub>) heterocycloalkyl linked or fused ring system, optionally containing up to 3 heteroatoms selected from oxygen, nitrogen, sulphur, and phosphorous; or

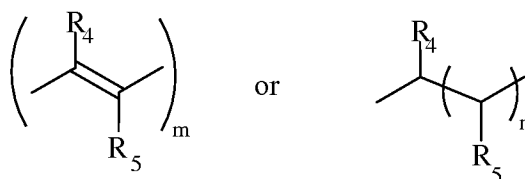
R<sup>1</sup> and R<sup>2</sup> optionally form a (C<sub>6</sub> or C<sub>10</sub>) aryl, (C<sub>6</sub> or C<sub>10</sub>) arylalkyl, (C<sub>6</sub> or C<sub>10</sub>) heteroaryl, (C<sub>3</sub>-C<sub>8</sub>) heterocycloalkenyl, (C<sub>5</sub>-C<sub>8</sub>) cycloalkene ring, (C<sub>5</sub>-C<sub>8</sub>) cycloalkyl, (C<sub>5</sub>-C<sub>8</sub>) heterocycloalkyl linked or fused ring system, optionally the ring formed is further substituted with a group R<sup>1</sup> as defined above, or the ring formed is fused to a further C<sub>6</sub> aryl group which is optionally substituted with a group R<sup>1</sup> as defined above, or a group R<sup>1</sup>R<sup>2</sup>N, with R<sup>1</sup> and R<sup>2</sup> as defined above;

n is equal to 0, 1 or 2;

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, wherein each R is independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or substituted C<sub>1</sub>-C<sub>6</sub> alkyl;

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, or substituted C<sub>1</sub>-C<sub>6</sub> alkyl;

Q represents



wherein:

m is an integer from 1 to 4;

n is an integer from 1 to 8; and

R<sup>4</sup> and R<sup>5</sup> each independently represent hydrogen, or unsubstituted or substituted C<sub>1</sub>-C<sub>10</sub> alkyl;

or a pharmaceutically acceptable salt thereof.

58-63. (canceled).

64. (previously presented) A compound of claim 43, wherein:

X is NHOH, OH, NROR, or CRROH; and

Z is CR or N.

65. **(previously presented)** The method of claim 57, wherein:

$R^1$  is ( $C_6$  or  $C_{10}$ ) aryl, optionally substituted by ( $C_1$ - $C_{10}$ ) alkoxy, halo or ( $C_1$ - $C_{10}$ ) alkylamino;

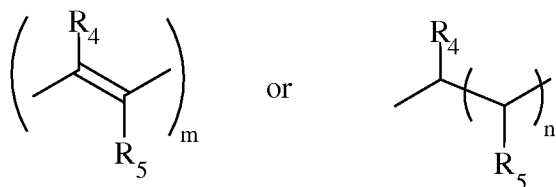
$R^2$  and  $R^3$  are each independently hydrogen or methyl, or  $R^2$  and  $R^3$  optionally form a  $C_6$  aryl;

n is equal to 0, 1 or 2;

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, wherein each R is independently selected from hydrogen,  $C_1$ - $C_6$  alkyl or substituted  $C_1$ - $C_6$  alkyl;

Y is O, 1, or 2 oxygen atoms;

Q represents



wherein:

m is an integer from 1 to 4;

$n'$  is an integer from 1 to 8; and

$R^4$  and  $R^5$  each independently represent hydrogen or methyl.

66. **(previously presented)** The method of claim 57, wherein said compound of general formula (I) is:

6-Phenylsulfanyl-hexa-2,4-dienoic acid (6a),

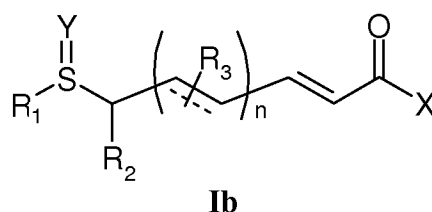
6-(4-Chloro-phenylsulfanyl)-hexa-2,4-dienoic acid methyl ester (6b), or

6-Phenylsulfanyl-hexa-2,4-dienoic acid methyl ester (6c).

67. **(previously presented)** A method of stimulating hematopoietic cells *ex vivo*, comprising administering an effective amount of a compound of general formula (I).

68-69. **(canceled)**.

70. **(previously presented)** A compound of general formula (Ib)



wherein:

R<sup>1</sup> is (C<sub>6</sub> or C<sub>10</sub>) aryl, (C<sub>6</sub> or C<sub>10</sub>) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C<sub>6</sub> or C<sub>10</sub>) heteroaryl, (C<sub>3</sub>-C<sub>8</sub>) heterocycloalkenyl, (C<sub>5</sub>-C<sub>8</sub>) cycloalkene ring, (C<sub>5</sub>-C<sub>8</sub>) cycloalkyl, (C<sub>5</sub>-C<sub>8</sub>) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with (C<sub>1</sub>-C<sub>10</sub>) alkyl, (C<sub>1</sub>-C<sub>10</sub>) alkenyl, (C<sub>1</sub>-C<sub>10</sub>) alkynyl, (C<sub>1</sub>-C<sub>10</sub>) alkoxy, (C<sub>1</sub>-C<sub>10</sub>) thioalkoxy, hydroxyl, (C<sub>1</sub>-C<sub>10</sub>) hydroxylalkyl, halo, (C<sub>1</sub>-C<sub>10</sub>) haloalkyl, amino, amido, (C<sub>1</sub>-C<sub>10</sub>) alkylamino, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyloxy, (C<sub>1</sub>-C<sub>10</sub>) alkoxy carbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylcarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylthiocarbonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonylamino, aminosulfonyl, (C<sub>1</sub>-C<sub>10</sub>) alkylsulfinyl, or (C<sub>1</sub>-C<sub>10</sub>) alkylsulfonyl;

R<sup>2</sup> and R<sup>3</sup> are each independently hydrogen or methyl, or R<sup>2</sup> and R<sup>3</sup> optionally form a (C<sub>6</sub> or C<sub>10</sub>) aryl;

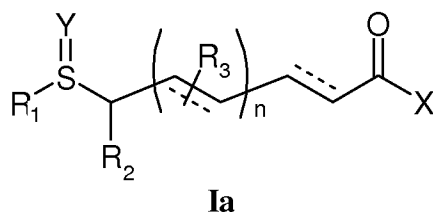
n is 0, 1 or 2;

X is hydroxamate (-NHOH); and

Y is 0, 1 or 2 oxygen atoms;

or a pharmaceutically acceptable salt thereof.

71. **(previously presented)** The method of claim 57, wherein the compound of formula (I) has a structure of general formula (Ia):



wherein:

$R^1$  is ( $C_6$  or  $C_{10}$ ) aryl, ( $C_6$  or  $C_{10}$ ) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, ( $C_6$  or  $C_{10}$ ) heteroaryl, ( $C_3$ - $C_8$ ) heterocycloalkenyl, ( $C_5$ - $C_8$ ) cycloalkene ring, ( $C_5$ - $C_8$ ) cycloalkyl, ( $C_5$ - $C_8$ ) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with ( $C_1$ - $C_{10}$ ) alkyl, ( $C_1$ - $C_{10}$ ) alkenyl, ( $C_1$ - $C_{10}$ ) alkynyl, ( $C_1$ - $C_{10}$ ) alkoxy, ( $C_1$ - $C_{10}$ ) thioalkoxy, hydroxyl, ( $C_1$ - $C_{10}$ ) hydroxylalkyl, halo, ( $C_1$ - $C_{10}$ ) haloalkyl, amino, amido, ( $C_1$ - $C_{10}$ ) alkylamino, ( $C_1$ - $C_{10}$ ) alkylcarbonyloxy, ( $C_1$ - $C_{10}$ ) alkoxy carbonyl, ( $C_1$ - $C_{10}$ ) alkylcarbonyl, ( $C_1$ - $C_{10}$ ) alkylthiocarbonyl, ( $C_1$ - $C_{10}$ ) alkylsulfonylamino, aminosulfonyl, ( $C_1$ - $C_{10}$ ) alkylsulfinyl, or ( $C_1$ - $C_{10}$ ) alkylsulfonyl,

$R^2$  and  $R^3$  are each independently hydrogen, ( $C_1$ - $C_{12}$ ) alkyl, unsaturated ( $C_2$ - $C_{12}$ ) comprising one or more  $C=C$  bond or  $C\equiv C$  bond, ( $C_1$ - $C_{10}$ ) alkoxy, ( $C_1$ - $C_{10}$ ) thioalkoxy, hydroxyl, ( $C_1$ - $C_{10}$ ) hydroxylalkyl, halo, or ( $C_1$ - $C_{10}$ ) haloalkyl; or

$R^2$  and  $R^3$  optionally form a ( $C_6$  or  $C_{10}$ ) aryl, ( $C_6$  or  $C_{10}$ ) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, ( $C_3$ - $C_8$ ) heterocycloalkenyl, ( $C_5$ - $C_8$ ) cycloalkene ring, ( $C_5$ - $C_8$ ) cycloalkyl, ( $C_5$ - $C_8$ ) heterocycloalkyl linked or fused ring system, optionally containing up to 3 heteroatoms, e.g. oxygen, nitrogen, sulphur or phosphorous; or

$R^1$  and  $R^2$  optionally form a ( $C_6$  or  $C_{10}$ ) aryl, ( $C_6$  or  $C_{10}$ ) arylalkyl, ( $C_6$  or  $C_{10}$ ) heteroaryl, ( $C_3$ - $C_8$ ) heterocycloalkenyl, ( $C_5$ - $C_8$ ) cycloalkene ring, ( $C_5$ - $C_8$ ) cycloalkyl, ( $C_5$ - $C_8$ ) heterocycloalkyl linked or fused ring system, optionally the ring formed is further substituted with a group  $R^1$  as defined above, or the ring formed is fused to a further  $C_6$  aryl group which is optionally substituted with a group  $R^1$  as defined above, or a group  $R^1R^2N$ , with  $R^1$  and  $R^2$  as defined above;

$n$  is 0, 1 or 2;

$X$  is hydroxyl ( $-OH$ ),  $-OR$ ,  $NHR$ , hydroxamate ( $-NHOH$ ),  $NHOR$ ,  $NROR$ ,  $NRNHR$ , or

SR, wherein each R is independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or substituted C<sub>1</sub>-C<sub>6</sub> alkyl; and

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, or substituted C<sub>1</sub>-C<sub>6</sub> alkyl;

or a pharmaceutically acceptable salt thereof.